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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PHAM, THIERRY L

ART UNIT PAPER NUMBER

2624

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/767,223	Applicant(s) GASSHO ET AL.	
	Examiner Thierry L. Pham	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- This action is responsive to the following communication: an Amendment filed on 2/2/05.
- Claims 1-12 are pending in application; Claims 1, 11-12 have been amended to add new features.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, and 11-12 recite the limitation "said predetermined data in the buffer". There is insufficient antecedent basis for this limitation in the claim. The examiner is unclear whether the applicant is referring to "predetermined type of data" or "predetermined data" alone. Appropriate action is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts et al (U.S. 6476930), and in view of Reilly (US 6401150).

Regarding claim 1, Roberts discloses a print job management apparatus (control station 108, fig. 1) that stores (storage, col. 6, lines 50-56) a plurality of print jobs (plurality of jobs, col. 8, lines 25-30) sent from at least one print data generating apparatus (client computers 102, 104, 106, fig. 1) into a buffer and causes a printer to adequately carry out printing operations corresponding to the plurality of print jobs (plurality of print jobs, fig. 4), said print job management apparatus comprising:

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- a job form decision unit configured to determine whether or not each print job of interest among the plurality of print jobs is said interactive print job (control station comprising print interface process 230 for determining whether the print job is an interactive print job, i.e., determine whether an incoming print job is encrypted in PostScript format or not is defined as “interactive print job” by the specifications, col. 8, lines 8-65).

However, Roberts does not explicitly disclose the print job management apparatus comprising:

- stacks only a predetermined type of data being set to the interactive print job in a specific form without representing all drawing details of the print job;
- establish mutual communication between said print data generating apparatus and said printer and carry out printing at a specific timing determined by stacking condition of said predetermined data in the buffer.

Reilly, in the same field of endeavor for printing, teaches a printer managing apparatus (print server 80, fig. 3) comprising:

- an input unit (print queue 82 stores only job information, fig. 3, col. 7, lines 56-67 to col. 8, lines 1-12) that stacks only a predetermined type of data being set to the print job in a specific form without representing all drawing details of the print job (print queue only stores job information without print data, col. 7, lines 56-67 to col. 8, lines 1-12);
- and an unit configured to establish mutual communication between said print data generating apparatus (host computer and printer 410 are communicated mutually, fig. 6) and said printer and carry out printing at a specific timing determined by stacking condition of said predetermined data in the buffer (print queue only stacks job information, col. 3, lines 6-12, col. 7, lines 56-67, and print queue as shown in fig. 3 is equivalent to a buffer as taught by the applicant). Please notes: Reilly’s print queue stores only job information, and print data is remained stored at a client computer, upon initial printing, the print data is mutually transmitted between host computer and printer.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made by modifying printer controller station 108 of Roberts to include an input unit that stacks only a predetermined type of data and to establish mutual communication as taught by

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Reilly because of a following reason: (●) by only transmitting and storing job information while keeping the actual print data with the host computer, then network traffic is also reduced (Reilly, col. 7, lines 56-67); (●) because the print queue only stores job information data without storing the actual print data, the small sized RAM/BUFFER is used in contrast to a larger sized spooling disk, therein, save hardware costs (Reilly, col. 9, lines 16-21).

Therefore, it would have been obvious to combine Roberts with Reilly to obtain the invention as specified in claim 1.

Regarding claim 2, Reilly further discloses a print job management apparatus in accordance with claim 1, wherein said print data generating apparatus is connected with said printer via a network (network as shown in fig. 1).

Regarding claim 3, Roberts further discloses a print job management apparatus in accordance with claim 1, wherein the predetermined data set intrinsically (JOB ID, col. 13, lines 42-44) in said interactive print job input unit is job information data, which includes at least information specifying that the print job of interest is the interactive print job (i.e. Postscript format, col. 8, lines 8-19) and information specifying a print data generating apparatus that has transmitted the print job of interest. Also see Reilly for more information regarding how print data is transmitted from host computer to the printer without having to store the actual print data beforehand within the buffer.

Regarding claim 4, Reilly further teaches a print job management apparatus in accordance with claim 1, wherein said print job input unit outputs a specific interruption signal (interrupt signals, col. 9, lines 46-55) to a print data generating apparatus, which is transmitting the print job of interest, to discontinue the transmission of the print data when it is determined that the print job of interest is the interactive print job (interrupt to change job priority and/or discontinue current transmission).

Regarding claim 5, Reilly further a print job management apparatus in accordance with claim 1, wherein said interactive print job execution unit carries out printing (actual print data is directly transmitted from host computer to printer and not via buffer/print queue, col. 9, lines 23-45) not via said buffer.

Regarding claim 6, Roberts further discloses a print job management apparatus in accordance with claim 1, said print job management apparatus being incorporated in said printer (col. 6, lines 40-45).

Regarding claims 7-8, Reilly further discloses a print job management apparatus in accordance with claim 2, wherein said job form decision unit carries out the determination, based on a communication protocol (communication protocol, col. 1, lines 25-37) specified when the print job of interest is transmitted as packet data via a network including AppleTalk (col. 1, lines 25-53).

Regarding claim 9, Roberts further discloses a print job management apparatus in accordance with claim 1, wherein the interactive print job (determine whether an incoming print job is in Postscript format or not, col. 8, lines 10-65) is data that specifies a target image to be printed in a page description language (i.e., Postscript, col. 8, lines 5-50), which can be interpreted and executed by said printer.

Regarding claim 10, Reilly further discloses a print job management apparatus in accordance with claim 1, wherein the interactive print job is data including a predetermined header (JOB ID, fig. 11), and said job form decision unit carries out the determination based on the predetermined header (JOB ID including job format, fig. 11, col. 8, lines 8-20).

Regarding claim 11: Claim 11 is the method corresponding to the apparatus claim 1. The methods are included by the operation of the apparatus. Please see claim rejection basis/rationale as described in claim 1 above.

Claim 12 corresponds to claim 1 except computer readable memory medium for storing program is claimed rather than printing system or data output apparatus. All computers have some type of computer readable memory medium (RAM 414, fig. 6 of Reilly) for storing computer programs, hence claim 12 would be rejected using the same rationale as in claim 1.

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

- Regarding claim 1, the applicants argued the cited prior art of record (US 6476930 to Roberts) fails to teach and/or suggest a determination whether the a print job is an interactive print job.

In response, the examiner first notes the arguments as presented by the applicants are not persuasive. Limitations as cited in claim 1 do not specify what "format" of a print job is entitled to as an "interactive print job". According to the original filed specification, an *example* of an "interactive print job" is a print job that is described in a Postscript format and indicated "interactive print job" can also be in other formats. Roberts explicitly teaches (●) a job form decision unit configured to determine whether or not each print job of interest among the plurality of print jobs is said interactive print job (control station comprising print interface process 230 for determining whether the print job is an interactive print job, i.e., determine whether an incoming print job is encrypted in PostScript format or not is defined as "interactive print job" by the specifications, col. 8, lines 8-65).

- Regarding claim 1, the applicants argued the cited prior art of record (US 6476930 to Roberts) fails to teach and/or suggest storing a plurality of jobs into a buffer.

In response, the examiner interprets "mass storage device" is served as a buffer for storing plurality of jobs. A buffer is a memory device for temporary storing print job data prior submitting to a printer's engine, therefore, "mass storage device" as cited by the examiner meets this limitation. Roberts also teaches a buffer for storing print job data (col. 3, lines 55-57).

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- Regarding claim 1, the applicants argued the cited prior art of record (US 6476930 to Roberts) only shows only one print job, rather than plurality of print jobs.

In response, Roberts explicitly teaches plurality of print jobs (multiple copies of a document are to be printed, col. 8, lines 23-32).

- With respect to new features (stack only a predetermined *type* of print data and stores such predetermined type of data *in a buffer*) amended to claims 1, and 11-12, the examiner herein withdrawn previous rejection and introduce a new ground of rejection in view of newly found prior art reference (US 6401150 to Reilly).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- EP 820004 to Suzuki et al, teaches a language interpreter for determining the type of an incoming print job format
- US 2002/0089695 to Kubota, teaches a printer controller apparatus that directly outputted the print data to a recorder and printed without storing into a frame buffer in accordance with the kind of print data.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L. Pham whose telephone number is (571) 2727439. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thierry L. Pham


GABRIEL GARCIA
PRIMARY EXAMINER